

1. A sample chip analyzing device, comprising:

a waveguide plate, which is able to entirely reflect incident light and guide the same, having a number of sampling probes on the surface thereof;

a light source for irradiating light from the end plane of said waveguide plate to the interior thereof; and

a pickup member for picking up an image of the surface of said waveguide plate on which said sampling probes are fixed;

wherein light is entirely reflected in the waveguide plate in which a sample to be analyzed, marked with fluorescent substances, is coupled to the sampling probes, the fluorescent substances are pumped by an evanescent wave occurring when guiding optical waves, and are caused to fluoresce, and a sample to be analyzed is able to be analyzed by a fluorescent image on the picked up surface of the waveguide plate.

2. A method for analyzing a sample chip, comprising the steps of:

pumping marked fluorescent substances of a sample to be analyzed, which are coupled to sampling probes by an evanescent wave occurring when making light from a light source incident into a waveguide plate, in which a number of sampling probes are fixed on the surface thereof, and guiding the same to the waveguide plate;

causing the marked fluorescent substances to fluoresce; and

analyzing said sample to be analyzed, on the basis of a fluorescent image on the picked up surface of said waveguide.

3. The sample chip analyzing device and method for analyzing a sample chip according to Claim 1 or 2, wherein said waveguide plate is

a glass substrate.

4. The sample chip analyzing device and method for analyzing the sample chip according to Claim 1 or 2, wherein said waveguide plate has a pair of insulation reflection plates arranged opposite to each other with an appointed interval.

5. The sample chip analyzing device and method for analyzing the sample chip according to Claim 1 or 2, wherein said light source outputs light of a wavelength that pumps the marked fluorescent substances.

6. The sample chip analyzing device and method for analyzing the sample chip according to Claim 1 or 2, wherein said sampling probes and sample to be analyzed are made into any one of polynucleotide, peptide and protein.

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